

## Claims

[c1] I Claim:

1.A heating induction apparatus for controlling the welding parameter of temperature for a section of metal piping, which heating apparatus is comprised of:  
a pair of opposed heating collars spaced substantially parallel and contiguous with a weld joint, each heating collar comprising a resistance wire network which is capable of creating a thermal resistance through the network when voltage is applied across the wire, an inner core which is contiguous with the piping and absorbs the thermal heat energy from the network and transfers it to the piping;  
a thermostatic control mechanism comprising a means for controlling the voltage applied across the network; wherein the thermostatic control mechanism controls the voltage and modulates the voltage applied across the network thereby controlling the quantity of thermal energy transferred between the inner core and the metal piping.

[c2] 2.The heating collar, as claimed in claim 1, which is further comprised of an inner core for absorbing thermal

energy from the network, said inner core transfers thermal energy to the piping.

- [c3] 3.The heating collar, as claimed in claim 2, which is further comprised of a heat transfer element, said heat transfer element is contiguous with the inner core and transfers thermal energy between the inner core and the piping.
- [c4] 4. The heating collar, as claimed in claim 3, which is further comprised of an outer cover, said outer cover provides a thermally conductive heat transfer substrate for transferring thermal energy from the inner core to the piping
- 5.The heating collar, as claimed in claim 4, which is further comprised of an insulating layer, said insulating layer provides a heat insulating layer for protecting the hands of the welding operator from direct thermal contact with the heat transfer element.
- [c5] 6.The heating collar, as claimed in claim 5, which is further comprised of a protective layer, said protective layer provides a protective outer covering for supporting and protecting the heat transfer element, inner core, and insulating layer from the external environment.
- [c6] 7.The thermostatic control mechanism, as claimed in

claim 6, which is further comprised of a voltage input plug.

- [c7] 8.The thermostatic control mechanism, as claimed in claim 7, wherein the voltage input plug receives voltage from a power source of 110 volts.
- [c8] 9.The heating apparatus, as claimed in claim 8, wherein the protective layer is comprised of a fastening means for securing each collar securely around the piping.
- [c9] 10.The heating apparatus, as claimed in claim 9, wherein the fastening means is comprised of both a first end and a second end on the protective layer.
- [c10] 11.The fastening means, as claimed in claim 10, wherein the first end is comprised of a Velcro tab secured to a distal end of the protective layer, and a second end secured to a proximal end of the protective layer, said second end is comprised of a Velcro receiving end for receiving the Velcro tab of the distal end for fastening the heating apparatus around the circumference of the piping.